

***Parnassius* (Lepidoptera, Papilionidae) in perpetuity—the ghost of collections past**

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Abstract Using *Parnassius* butterflies as an example, the British Museum collection *circa* 1856 is reconstituted with particular reference to the contributions made by the significant collectors and benefactors.

Key words British Museum, butterflies, *Parnassius*, duplicates.

Introduction

Long-established major entomological collections tend to exist on two parallel, largely exclusive, planes—the needs of taxonomic science over-riding historical aspects. Viewed from ‘Entomology’, this division appears far less sharply defined in other branches of life science. In Botany, the horticultural component contributes to a lively literature based around the plant hunters (such as, Lyte, 1983; Musgrave *et al.*, 1998). In Zoology, Ornithology leads the way—for instance, Mearns & Mearns (1998) study, *The Bird Collectors*. Interest in the history of entomological collections, for the most part only finds outlets in such obscure journals (at least for main-stream entomologists) as *Archives of Natural History*, or in the valiant work of dedicated stalwarts like Pamela Gilbert (Gilbert, 1977, 2000) and Michael Salmon (Salmon, 2000).

The mid 19th Century catalogues of the British Museum Lepidoptera are especially intriguing in documenting the start of a gradual shift away from “cabinets of curiosities” (with low specimen representation) toward something more recognisably modern—longer series that would permit ultimately assessment of variation within and between populations (Johnson, 2003). At the outset, this change was facilitated through the generosity of many now long-forgotten benefactors of the collection. In effect, had it remained extant, the collection as it existed *circa* 1850 would have been a valuable historical document with respect to the development of collections, both in terms of the specimens themselves and the individual donations through which they were obtained.

In a taxonomic collection, much of the historical component is largely lost as arrangements are revised and new materials added. We set ourselves the task of locating the original specimens and temporarily reconstructing the national collection of one genus, *Parnassius*, as it existed in 1856 when G. R. Gray published his catalogue of the Papilionidae in the British Museum collection (Gray, 1856). By so doing and publishing here, we provide a permanent record of this important phase in collection development albeit only for one genus. At the same time we provide brief synopses of the benefactors—dealers, soldiers, and private and commercial collectors, through whom the collection benefited so significantly.

In view of our opening contention, it is worth noting that apart from the type specimens involved, nearly all the material was located either in the duplicate series or in unnamed, unsorted accessions, so reflecting the priorities of a major taxonomic collection. The choice of *Parnassius* was not accidental. For one of us (pra) this is something of a pilgrimage, an opportunity to re-visit a part of the collection for which some affection is retained, if not any great understanding (Ackery, 1973, 1975).



Fig. 1. South front of the British Museum, Bloomsbury (2003), as designed by Sir Robert Smirke (1780–1867).

Cabinets and curators

In 1856, the natural history collections were still an integral part of the British Museum (Fig. 1), at Bloomsbury, central London. The Insect Room was on the Ground Floor at the north-west extremity of the site. Subsequent redevelopment entailed southward and westward expansion. The general vicinity of the Insect Room is now exhibition space used to house part of the Graeco-Roman collection, specifically the Tomb of Payava (Fig. 2).

J. E. Gray (b. 1800–d. 1875) provides a diagram of how the collections were arranged in 1840 (Samouelle, 1819–1836: see our Fig. 3). He disliked the initial cabinet layout as “they did not arrange in a series and those which were placed at the end of the table obstructed much of the light [so] I have moved them as under”. Following the lower diagram, the Lepidoptera were in six cabinets, numbered 21 to 26. As keyed by Gray, cabinets 21, 22, 23 and 24 were 40-drawer racks containing “exotic Lepidoptera Papilionidae [it appears Gray only employed two butterfly family-group names, Papilionidae and Hesperidae] arranged according to Mr Godart.... Cabinet 25 is noted as “Old — The drawers very stiff”; cabinet 26 was a 40-drawer unit — both contained Hesperidae in addition to other insect groups.

Günther’s (1912) description of the now much expanded entomological collection (*circa* 1856, we presume still in the same room) is familiar (see also floor plan for 1866–Fig. 4): “It was kept in a large room—the Insect Room—a well-lighted apartment fifty feet by thirty feet, in which the cabinets were arranged along the walls or in rows intersecting the body of the room, so as to divide it into several partitions. This was also the principal work-room of the Department, in which not only the men directly engaged upon the entomological collections were placed, but also other Assistants and any visitors or students requiring assistance from some member of staff..... [The Collection] had attained sufficient proportions to fill this large room; the twenty-drawer cabinets, of which eight or ten were supplied each year, being piled on the top of the old ones almost to the ceiling.”



Fig. 2. Part of the Graeco-Roman collection at the British Museum, including the mammoth tomb of Payava, which now occupies the much remodelled space that once accommodated the insect collections.

The 1840 layout did not include 20 drawer cabinets. Subsequently the *Printed Minutes of the General Meetings of the Trustees of the British Museum, Bloomsbury*, minutes 7641 (25th November 1848) and 7904 (8th December 1849) noted their purchase from Mr Benjamin Standish. To date, we have not been able to identify any 20 drawer cabinets of this early vintage. We assume that they were comparable with what has become known colloquially in the Department as 'Hill Cabinets' (Fig. 5), as supplied by the manufacturer J. J. Hill & Son. Prior to Hill, and subsequent to Standish, cabinets of the Hill design were made for the Museum by 'Cubitt'. Presumably, the in-take of Standish cabinets was required to facilitate recuration and expansion, including Edward Doubleday's re-arrangement of the butterfly collections after 1842 (Hampson *in* Lankester, 1906).

In 1835, Edward Doubleday (1811–1849) made an important two-year insect-collecting expedition to the United States, which no doubt contributed to his 1842 appointment at the British Museum with particular reference to the Lepidoptera collections. His re-arrangement of the collections resulted in the Museum's first entomological catalogue, *A List of the lepidopterous Insects in the British Museum* (1844–1848). Taken together with his eight-volume hand-written manuscript catalogue in the BMNH collection, these two works are a primary source of information with respect to the early Lepidoptera holdings in the Museum.

Following Doubleday's untimely death in 1849, Frederick Smith (1805–1879) joined the staff. Initially, he seems to have contributed to the re-arrangement of the Coleoptera, and then the Hymenoptera. Responsibility for the Lepidoptera passed to George Robert Gray (1801–1872). Although primarily an Ornithologist, his revised catalogue of the Papilionidae (Gray, 1856) ranks as an important historical document. The Gray family comprised generations of naturalists and scientists (Stearn, 1998). George's father, a pharmacist by profession, authored a standard work on British botany, while his brother John Edward headed the zoological branch of the BM (after 1856, the Department of Zoology) from 1840 to 1875.

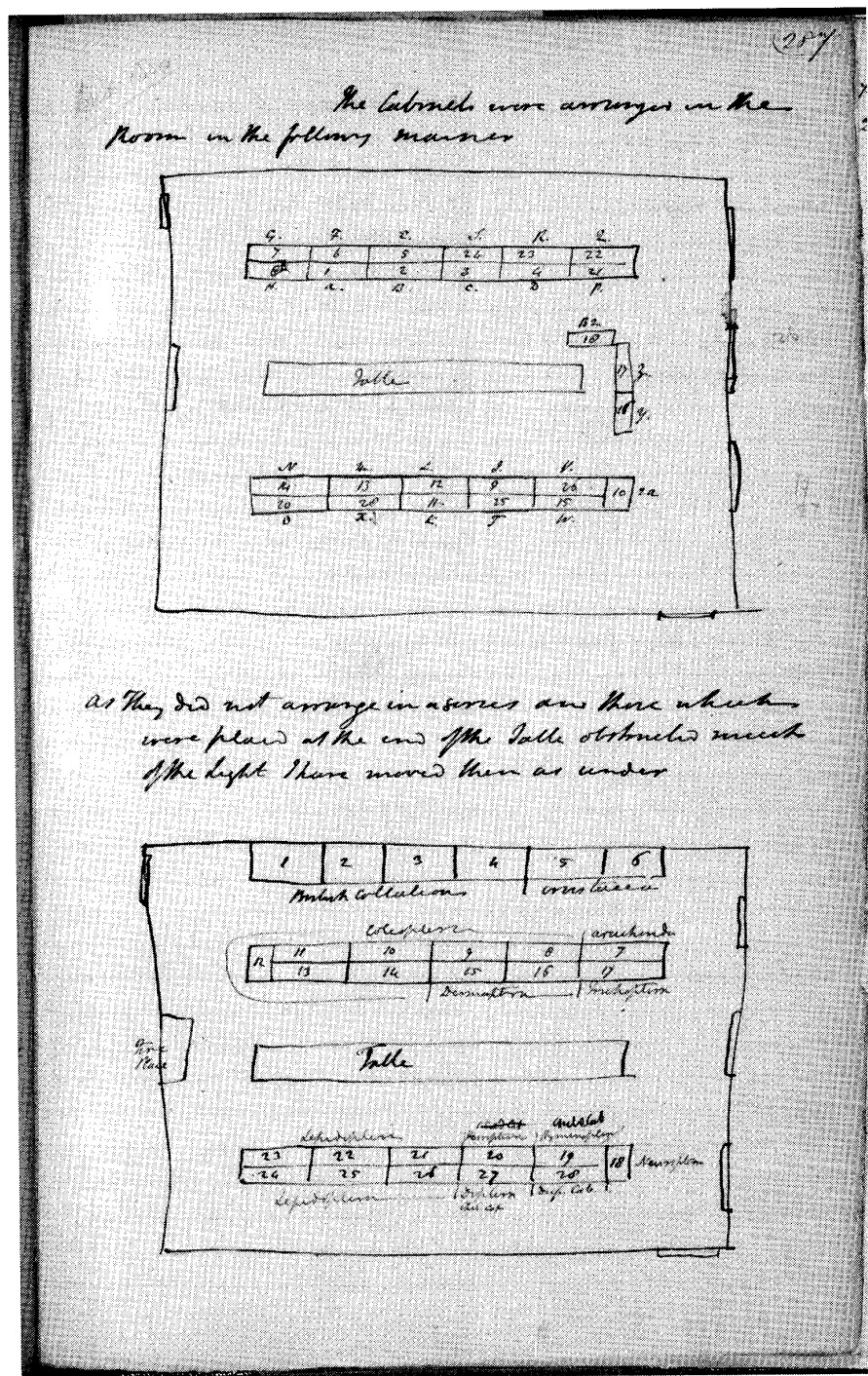


Fig. 3. The sketch plan of G. R. Gray's arrangement of the insect collections, 1840.

Henry Walter Bates gives us an independent assessment of the effort devoted to the collection. Bates and Alfred Russel Wallace visited the Museum in 1848 prior to their departure for South America. The collections were "in the utmost confusion: scarcely a genus in proper order and duly named. No entomologist who wishes to name his species can do anything with it, and it is of little aid to any one wishing to work out any scientific problem in which insects supply the facts" (Clodd, 1892). Being charitable to our curatorial predecessors, we wonder if this opinion was based primarily on the Coleoptera (Bates' great love, and not yet re-worked), rather than the Lepidoptera? Anyway, by 1858,

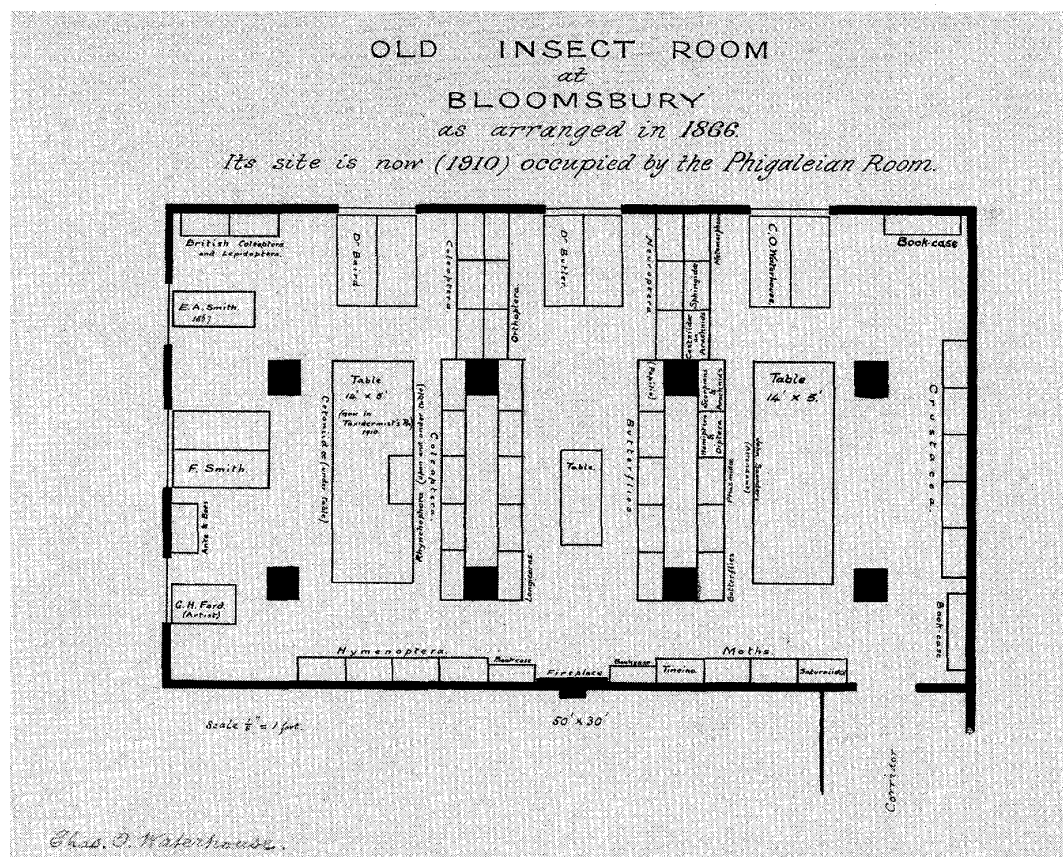


Fig. 4. Ground plan of the Old Insect room at the British Museum, 1866.

he was much mollified: "how excellent is the system adopted by the British Museum which tickets every individual specimen (at least in the Lepidoptera), and comprises specimens of each species from different points of its area of distribution" (Bates, 1858).

The *Parnassius* collection

It might appear strange that Gray (1856) should have re-catalogued the papilionid collection so soon after Doubleday (1844). But if the *Parnassius* holdings are typical, then the collection grew significantly during the intervening years. Doubleday only listed eleven *Parnassius* specimens in contrast to the 60 that were present by 1856. Of these 60 specimens, we have located 36. These specimens have been databased, as listed in Table 1. For the most part, we had the least success with the commonest species, finding only one of nine *P. apollo*, three of seven *P. phoebus*, and three of eight *P. mnemosyne*. This might simply reflect difficulty in recognising these specimens amongst the vast series currently held. However, we do wonder if the missing specimens might have been disposed of, reflecting the ease with which 'better' material could have been acquired.

Our ideas of the actual physical housing and arrangement of the collection in the mid 19th Century owe more to informed speculation than anything else. We have seen that 20-drawer cabinets were regularly purchased to facilitate recuration. We assume that these would be of the 'Hill' type, with drawers having an integral cork base rather than the more modern facility for removable slats (Fig. 6). These drawers are still commonplace in parts of the insect collection, and our recovered *Parnassius* material has been placed in such a



Fig. 5. A standard 20 drawer 'Hill cabinet' of unknown vintage. The classic gold lettering 'Homoptera' is perhaps indicative of some antiquity. This could possibly be an original Standish cabinet.

drawer. Similarly, labelling is a matter of conjecture. We do have extant 16 drawers of Palaearctic butterflies that have come down to us as the 'Doubleday Collection', although the supposed antecedents are not supported by documentation. The 'Doubleday' *Parnassius* are figured (Fig. 7) and the range of species present suggests that it is very much contemporary with Doubleday and Gray. Our assumption is that the labelling of Doubleday's private collection would be similar to that which he adopted for his 1842–1848 arrangement of the B. M. collection. We compound this by assuming that Gray, in re-arranging the Papilionidae, would not have made a radical departure from Doubleday's previous arrangement. The labels that we have used in the reassembled drawer were prepared from photocopies of the *Parnassius* section of Gray's (1856) catalogue (Fig. 8). So, while the specimens themselves are clearly authentic, our actual physical arrangement might be rather fanciful.

Benefactors and collectors

Gray (1856) presents information regarding the origins of almost every specimen as catalogued. This is very much the convention originated by Doubleday and followed by Francis Walker (1809–1874) in his copious and notorious catalogues for other insect groups in the BM collection. Sir Hans Sloane's (1660–1753) founding collection of the BM apparently included 5,394 "insects". Under the care of William Elford Leach (1790–1836), John George Children (1777–1852) and George Samouelle (****–1846) the insect collection hardly thrived. Real progress only became apparent with the appointment of Adam White (1817–1897) and Doubleday, whose work was continued by Gray (Stearn, 1998). Development of the collection owed much to the generosity of various benefactors, familiar by name to those who need to elucidate historical BMNH type material, but otherwise long-forgotten. The brief synopses below provide some background to the personalities involved, at least with respect to the *Parnassius* butterflies.

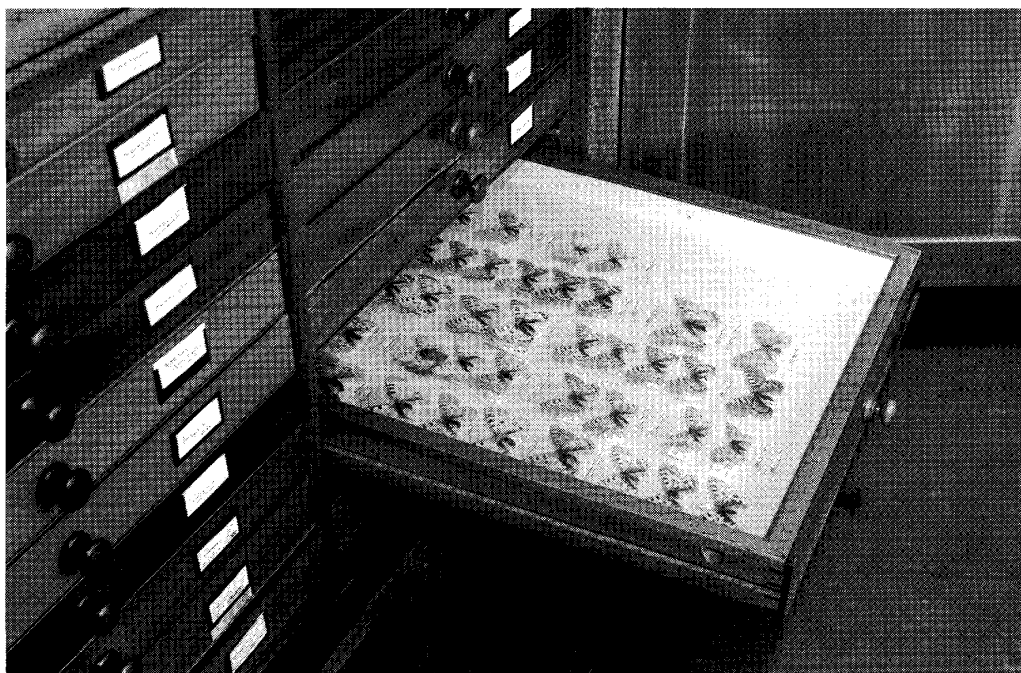


Fig. 6. The identified *Parnassius* specimens as catalogued by Gray, temporarily arranged in a solid bottomed 'Hill drawer' of the type likely to have been used *circa* 1856.

13th Earl of Derby

Edward Smith Stanley (1775–1851) succeeded to the family title at the age of 59. His Father, the 12th Earl, was a passionate sportsman (celebrated by one of the five 'classics'—The Derby—of the UK annual horse racing calendar), which conceivably fostered the 13th Earl's interest in animals and other aspects of natural history. His political obligations were fulfilled through 36 years as a serving Member of Parliament, but without the ambition of his son, who was UK Prime Minister on three occasions. As a relatively young man he began purchasing natural history collections, and as might be expected of an establishment figure served as president of both the Zoological and Linnean societies of London.

With the death of the 12th Earl began the expansion of the menagerie and aviary at the family seat of Knowsley (Lancashire, UK) which was to provide the subjects for much of the superb artwork associated with the Earl of Derby's collection, and of course specimens. Perhaps most notable amongst the artists employed was Edward Lear, now more celebrated for the nonsense verse with which he used to entertain the Stanley children.

So Mr Daddy Long-Legs
And Mr Floppy Fly
Sat down in silence by the sea,
And gazed upon the sky.
They said, 'This is a dreadful thing!
The world has gone wrong,
Since one has legs too short by half,
The other much too long!'

The 13th Earl's will provided for the establishment of the Derby Museum, now the Liverpool Museum, National Museums Liverpool. The recent celebration of this museum's ter-jubilee provided the impetus for the publication of a commemorative volume, replete

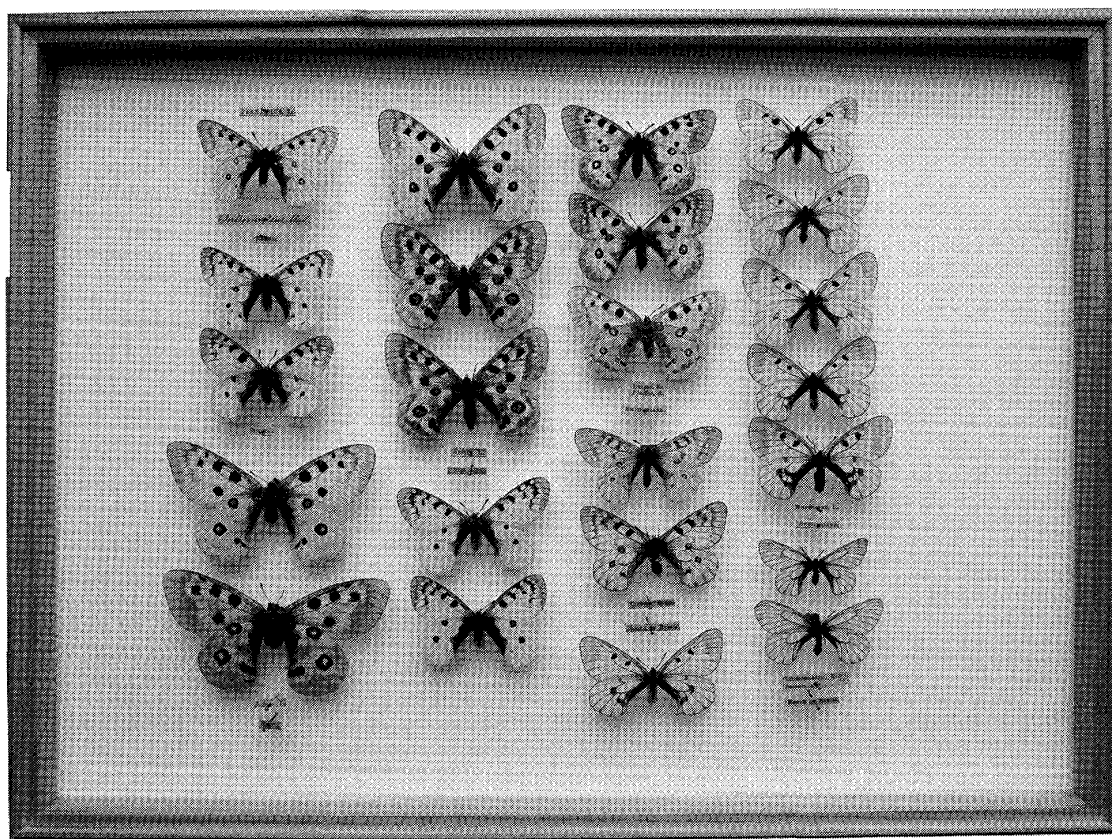


Fig. 7. Doubleday's *Parnassius* collection and labelling as preserved in The Natural History Museum collection.

with further detail of the Earl's life and work (Fisher, 2002). While the Liverpool Museum is certainly the repository for most of the birds and mammals included in the collection, the then British Museum was the grateful recipient of a number of significant donations of birds, mammals and insects. Listed in the Zoology Accessions Annulosa Register are 13 presentations registered between 1843 and 1852. Registration of the final collection was delayed by the demise of Edward Doubleday—the register states “apparently left unregistered owing to Mr Doubleday's death”. It was Doubleday who described *Parnassius smintheus* (now usually regarded as a subspecies of *P. phoebus*), basing his description on material presented by the Earl of Derby, and originating from the “Rocky Mts”. This material, collected by Joseph Burke, was deduced by Shepard (1984) as having been collected near Jasper, Alberta, Canada.

Material located: Entomology Specimen Register nos 148842-4 (see Table 1).

Lieut. Colonel Andrew Charlton (1803–1888)

For all students of *Parnassius*, Andrew Charlton's expedition to ‘Nepal and Tibet Tartary’ must be one of the great landmarks. Resulting materials comprised the type material for *P. acco* Gray, *P. simo* Gray, *P. charltonius* Gray and *P. epaphus* Oberthür. But Charlton remains a shadowy figure, who seemingly did not merit a mention in the classical 19th Century literature devoted to British exploration of India. He appears just fleetingly as co-discoverer, with a Captain Jenkins, of the tea plant in Upper Assam (Robinson, 1861).

He was born in 1803, in Shawbury Shropshire, UK, the third son of Philip and Jane

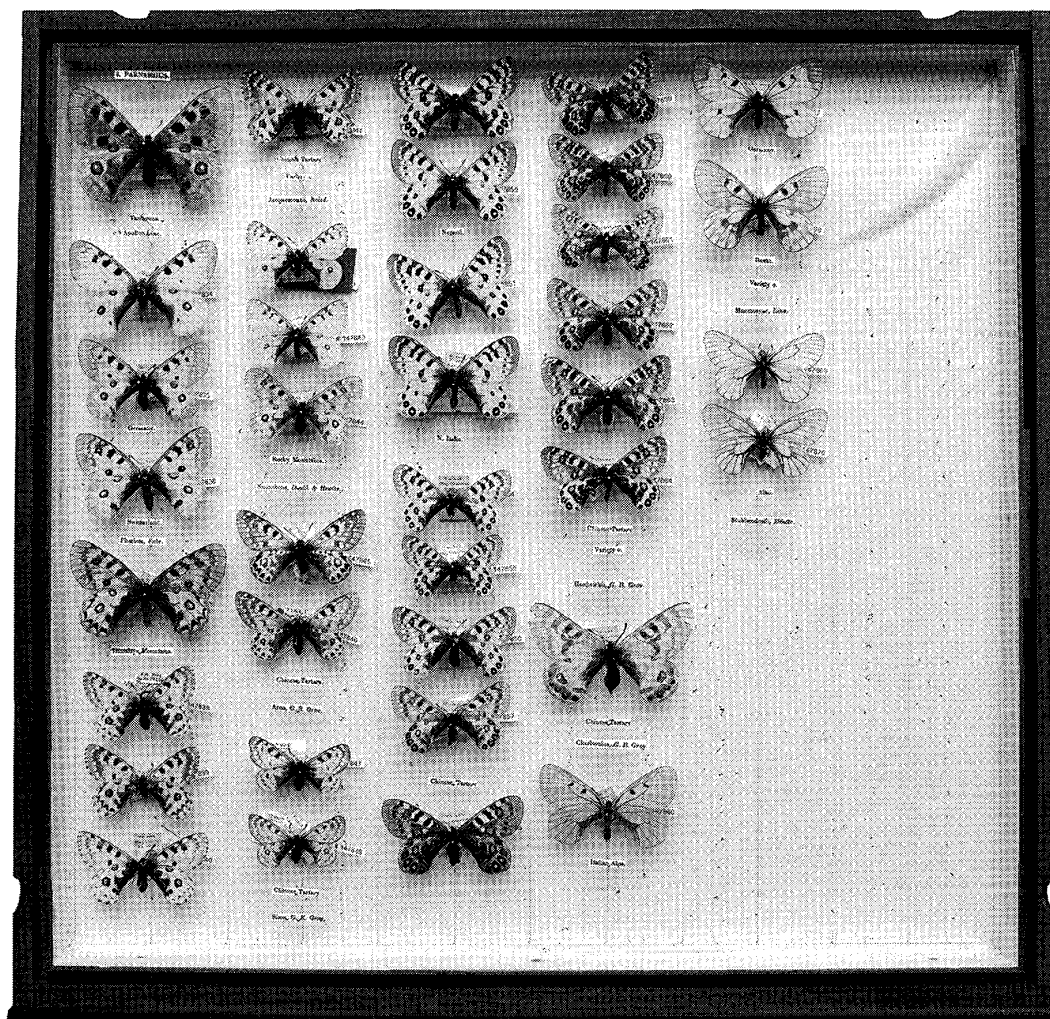


Fig. 8. Following Doubleday's collection as a model the possible appearance of the British Museum *Parnassius* collection as arranged circa 1856. Column 1, first specimen, Entomology Specimen Register number 147833, 147834, 147835, 147836, 147837, 147838, 147839, 147840; Column 2, 147841, 147842, 147843, 147844, 147845, 147846, 147847, 147849; Column 3, 143658, 147850, 147851, 147853, 147854, 147855, 147856, 147857, 147858; Column 4, 147859, 147860, 147861, 147862, 147863, 147864, 147865, 147866; Column 5, 147867, 147868, 147869, 147870. See Table 1 for details.

Charlton (nee Brady). His military career encompassed some 30 years, initially as a cadet (1820), arriving in India in 1821 and rising through the ranks to be invalided in 1848 and retired in 1852. The plethora of Victorian memorial plaques in many English churches suggests that such a lengthy period of survival in the military India service was not a common occurrence.

Apparently Charlton's interest in natural history was broad. Mammal and bird specimens from Malaya were presented in 1846. But for entomologists his reputation is based upon the two small collections of Lepidoptera that he sold to the Museum in 1852—as noted in the Zoology Accessions Annulosa Register, collection B. M. 1852-97, 31 Lepidoptera from “N. India between Nepaul & Tibet Tartary”, and collection B. M. 1852-112 from “N. India between Thibet & Nepal”. Gray (1856) describes *acco*, *simo* and *charltonius* as from “Chinese Tartary”, while the data on the specimens themselves in no more informative—

Table 1. Identified *Parnassius* specimens as catalogued by Gray.

<i>Parnassius apollo</i> (Linnaeus)				
147833	SPAIN, Terragona			
<i>Parnassius phoebus</i> (Fabricius)				
147834	GERMANY	Becker?		
147835	GERMANY	Becker		
147836	SWITZERLAND	W. C. Hewitson		
<i>Parnassius jacquemontii</i> Boisduval				
147837	N. INDIA	Capt Boys	B. M. 1852-126	
<i>Parnassius jacquemontii</i> var. a				
147838	THIBET	Maj. Charlton	B. M. 1852-97	Lectotype <i>P. epaphus</i>
147839	THIBET	Maj. Charlton	B. M. 1852-97	Paralectotype <i>P. epaphus</i>
147840	THIBET	Maj. Charlton	B. M. 1852-97	
147841	THIBET	Maj. Charlton	B. M. 1852-97	
<i>Parnassius smitheus</i> Doubleday				
147842	Rocky Mountains	Earl of Derby	B. M. 1845-136	Lectotype
147843	Rocky Mountains	Earl of Derby	B. M. 1847-17	
147844	Rocky Mountains	Earl of Derby	B. M. 1845-136	Paralectotype
<i>Parnassius acco</i> Gray				
147845	THIBET	Maj. Charlton	B. M. 1852-97	Syntype
147846	TIBET	Maj. Charlton	B. M. 1852-97	Syntype
<i>Parnassius simo</i> Gray				
147847	THIBET	Maj. Charlton	B. M. 1852-97	Syntype
147849	THIBET	Maj. Charlton	B. M. 1852-97	Syntype
<i>Parnassius hardwickei</i> Gray				
143658	NEPAUL	Hardwicke		Syntype
147850	NEPAL	Col. Hearsay	B. M. 1847-102	
147851	N INDIA	Col. Hearsay	B. M. 1847-102	
147853	N. INDIA, Almora		B. M. 1848-131	
147854	THIBET	Maj. Charlton	B. M. 1852-97	
147855	THIBET	Maj. Charlton	B. M. 1852-97	
147856	THIBET	Maj. Charlton	B. M. 1852-112	
147857	THIBET	Maj. Charlton	B. M. 1852-97	
<i>Parnassius hardwickei</i> var. a				
147858	THIBET	Maj. Charlton	B. M. 1852-112	
147859	THIBET	Maj. Charlton	B. M. 1852-97	
147860	THIBET	Maj. Charlton	B. M. 1852-97	
147861	THIBET	Maj. Charlton	B. M. 1852-97	
147862	THIBET	Maj. Charlton	B. M. 1852-97	
147863	THIBET	Maj. Charlton	B. M. 1852-97	
147864	THIBET	Maj. Charlton	B. M. 1852-112	
<i>Parnassius charltonius</i> Gray				
147865	THIBET	Maj. Charlton	B. M. 1852-97	Syntype
<i>Parnassius mnemosyne</i> (Linnaeus)				
147866		F. A. Bonelli		
147867	GERMANY	Becker		
<i>Parnassius mnenosyne</i> var. a				
147868	Banat		B. M. 1854-17	
<i>Parnassius stubbendorfi</i> Ménétrières				
147869	Altai Mts.	Becker	B. M. 1853-14	
147870	Altai Mts.	Becker	B. M. 1853-14	

“Thibet” for *charltonius*, “Tibet” for *acco*, and “Thibet” for *simo*. Elwes (1886) interpreted Charlton’s locality as Ladak, providing the frustrating note that “I have been able to find out the route which Major Charlton followed in Ladak, or Chinese Tartary as it was called in those days” [but not telling us how!]. With respect to *P. charltonius*, Elwes adds the seemingly impressive information that Charlton’s specimen actually originated from “Lapsang, in his journey in Ladak”. Riley’s (1926) deduction that Charlton’s material in fact comes from Kumaon is based in part on comparable material taken by H. G. Champion in this area, and has been widely accepted by current authorities (*e. g.* Weiss, 1991).

Material located: specimens 147838-41, 147845-7, 148749, 147854-65 (see Table 1).

Major-General Thomas Hardwicke (1756–1835)

Thomas Hardwicke, a military gentleman, entered the service of the Honourable East India Company at the age of 22. He fought in many obscure and largely forgotten campaigns—among them, the second and third Mysore Wars, the relief of Vellore, the Siege of Cuddalore and the Second Rahilla War (Dawson, 1946). Like Major Charlton, the longevity of his service is impressive, some 45 years, presumably either due to prudence or remarkably good fortune!

Hardwicke became a well-known figure in the Natural History establishment through fellowship of the Royal Society, the Linnean Society, the Asiatic Society of Bengal, the Royal Asiatic Society of London, and the Royal Dublin Society. No doubt, his retirement from military service in 1823 allowed him to take a far more active role.

He is perhaps best known for his ornithological contribution to John Edward Gray’s *Illustrations of Indian Zoology* (1830–1834). Kinnear (1952) suggests that at the period when Hardwicke was working in India (at the closing years of the 18th Century), painting bird specimens was a much better practical option than trying to preserve them, and it was these illustrations that Gray used in his pioneering work. During his lifetime, Hardwicke supported various institutions through generous donations of material. Nevertheless, upon his death, a substantial collection passed to the British Museum. The Hardwicke Bequest comprised specimens (vertebrates, invertebrates and minerals), drawings and a significant number of books and manuscripts.

With respect to *Parnassius* butterflies, Hardwicke is celebrated through the single species named in his honour, *Parnassius hardwickei*. Confusingly, this species was described by George Robert Gray (Gray, 1831), the brother of J. E. Gray with whom Hardwicke had his ornithological collaboration. It was unfortunate that Gray, presumably in error, actually described this species as *Parnassius hardwickii*—happily the subsequent emendation to *P. hardwickei* has been widely accepted. A single male syntype is extant in the BMNH collections labelled “Nepaul”, “Nepal, Hardwicke Bequest”.

Material located: specimen 143658 (see Table 1).

Mr Samuel Stevens (1817–1899)

Today, Stevens is certainly remembered for his crucial role as the London-based agent handling the interests of both Henry Walter Bates and Alfred Russel Wallace. His natural history agency, based at 24 Bloomsbury Street, closely adjacent to the British Museum, was a major distribution centre for natural history specimens. Stevens’ early ambitions to be an artist were curtailed by illness and so he entered into partnership with his brother, John Crace Stevens, in an auctioneer’s business in King Street, Covent Garden, an association

that lasted some eight years. In 1848, he left to found his natural history agency, and from 1859, on the death of his brother, he ran both businesses (Baker, 2001).

Stevens was elected to the Entomological Society in 1837, serving as both Treasurer and Vice-President, and also a Fellow of the Linnean Society and a member of the Entomological Club. In his lifetime, he developed a fine collection of British butterflies, sold-off in 1900 by his nephew and successor at the King Street premises (Allingham, 1924).

Two of our *Parnassius* were purchased from Stevens. One, a *P. hardwickei* specimen, was in a collection of 400 Lepidoptera sold to the Museum for £3–17 shillings (£3.85p), originating from Captain Boys (BM 1848-131). There is every likelihood that this is Captain W. E. Boyes of the 6th Cavalry recorded by Mearns and Mearns (1998) as scouring the United Provinces, the Rajputan States and the Himalayan foothills for specimens (see also under J. E. Warwick below). His bird collection was purchased by T. B. Wilson in 1847 on behalf of the Academy of Natural Sciences Philadelphia. The second specimen, a female *P. mnemosyne* cost the princely sum of 7 old pence (*circa* 3p) (part of collection BM 1854-17, all “named by Becker”). We assume that this is Alexander Becker, and the same Becker who independently presented several *Parnassius* to the BM collection (see below).

Material located: specimen 147853, 147868 (see Table 1).

Mr Alexander Becker (1818–1901)

Of German parentage, Becker was born in Sarepta (now Krasnoarmeysk, south of Volgograd, Russia) where he spent much of his life. From 1837, he was employed as a teacher, but for reasons of poor health gave this up in favour of being a professional organist. Married in 1845, he overcame his poor health sufficiently to father 14 children. Even if this did not unduly strain his constitution, it certainly strained his finances and he sought to supplement his income, not least by collecting plants and insects (Anon., 1901). Over more than 50 years, he provided plants for the botanical garden in St Petersburg. Apparently, “a large collection of named European Lepidoptera [was received by the BM in 1856], chiefly important as forming the basis of the general European collection for many years: purchased from A. Becker” (Anon. *in* Lankester 1906).

Becker undertook extensive collecting expeditions to the Caucasus, Daghestan, Kirghistan and Iran, publishing his results in the *Bulletin de la Societe Imperiale des Naturalistes de Moscou* (Wren, 1901). In addition to the Stevens specimen recorded above, Gray (1856) notes 13 *Parnassius* specimens presented by Becker. These have proved quite elusive—of the 13, we have located only five examples.

Material located: specimens 147834, 147835, 147867, 147869, 147870.

[J. E.?] Warwick (?–1874)

“Warwick” remains a tantalising enigma. He is referred to as “Warwick” in several entries in the Museum Register, also in *The Printed Minutes of the General Meetings of the Trustees of the British Museum, Bloomsbury*, and again by Bowdler Sharpe (1906) with respect to bird acquisitions. This might perhaps be taken to indicate that gentlemen (who invariably possess initials!), considered him a lesser being, a professional dealer in trade. The same fate usually befalls Samuel Stevens. We possess the single Warwick specimen that Gray catalogued, and it is labelled “Pur[chased] from Warwick, Coll. by Cap. Boys”.

Griffiths (1996) offers us a glimpse of John Edington Warwick. Clearly, he was closely involved with Edward Cross, proprietor of the Exeter Change Menagerie and the Surrey Zoological Gardens (Warwick, 1832, 1836), being both executor and beneficiary of his will. Most importantly, Warwick's correspondence with Lord Derby still survives. And significantly, one of these letters offers a collection of 45 eggs and 11 nests for sale, from a Captain Boyes!

Given the good correlation of dates, the records of "Warwick" and J. E. Warwick dealing in birds, and the association with Captain Boyes (or Boys), we feel reasonably confident that J. E. Warwick is the dealer involved. However, we offer one potential conundrum. The Collection Register entry for Warwick's collection BM 1846-83 gives his address in London as 11, Matcombe Street, Belgrave Square. The correspondence tracked down by Griffiths (1996) for the period 1845 to 1848 is on note paper headed "I. E. Warwick [I and J were often treated as interchangeable], Naturalist. 23 New Street, Kennington Road, London. Living Animals and Birds, Collections of Skins and Preserved Objects of Natural History, Bought Sold or Exchanged". Perhaps it is quite conceivable that the Belgrave Square address is for a private residence, while that for Kennington Road refers to business premises?

Material located: specimen 147837 (see Table 1).

Prof. F. A. Bonelli (1784–1830)

Franco (or Francoise) Andrea Bonelli (or Bonnelli) was, according to Swainson (1840), "Director of the Museum, and Professor of Zoology at Turin", apparently from 1811 until his death in 1830 (Mearns and Mearns, 1998). He is credited with raising the status of the Turin University Museum to that of Pavia, the foremost in the country (Mearns and Mearns, 1988). Swainson (1840) additionally notes that he was "an acute and indefatigable entomologist", apparently with a particular interest in carabid beetles. His catalogue of the birds of Piemonte published in 1811 long remained the standard ornithological work for that region (Genè, 1834).

Gray (1856) lists three *Parnassius* (a single *P. phoebus*, and two *P. mnemosyne*—one recovered) as originating from Bonelli. All three were collected in Italy, probably reflecting the local focus of his interests.

Material located: specimen 147866 (see Table 1).

Major F. J. Sidney Parry (1811–1885)

Parry joined the 17th Lancers as Cornet (now a redundant rank—formerly the lowest level of commissioned officer) in 1831 but left the army in 1835 (Anon., 1886: 106). In the Museum Collection Registers he usually appears as Captain Parry with the entries suggesting a global interest in insects, the basis no doubt of his membership of The Linnean Society. But his particular specialisation was the coleopterous family Lucanidae. *The Printed Minutes of the General Meetings of the Trustees of the British Museum, Bloomsbury*, note several exchanges carried out to the satisfaction of both parties. Allingham (1924) records the posthumous sale of the Parry collection of Stag and Goliath beetles, with healthy and competitive bidding from Oberthür, Janson and Deyrolle securing high prices. Parry was a frequent visitor to the Museum, contributing toward the layout of the lucanid collection (Waterhouse in Lankester, 1906).

Gray (1856) records a single Parry specimen.

Material located: specimen 147833 (see Table 1).

General Sir John Bennett Hearsey (1793–1865)

Hearsey's military service in India extended over 53 years, 34 without a furlough. His obituary (Anon., 1866) rings out with now obscure military campaigning—“he was present at the battle of Seetabuldie and at the siege and capture of Bhurtpore; in the Punjaub campaign of 1848–49 he was at Chilanwallah and Goojerat, and commanded the cavalry in the pursuit and the final surrender of the Sikh army. He was several times wounded, and was made a K. C. B. for his services in the great mutiny of 1857.” But amid the carnage he was also “a most zealous collector, and an untiring observer”.

The two Hearsey specimens listed by Gray (1856), both representing *Parnassius hardwickei*, have been located (collection BM 1847-102, two of 86 Lepidoptera from northern India included in the presentation). We have a third Hearsey *P. hardwickei* from the “Ind. Mus.”, presumably one of the two specimens listed by Horsfield and Moore (1858).

Material located: specimen 147850, 147851 (see Table 1).

Dr T. Dowler (17*-1855)

Thomas Dowler qualified in Medicine. Baker (1996) also notes that he formed a large collection of insects whilst on a tour through Europe. These he presented to the national collection in 1843 (collection B. M. 1843-57). Dowler collected in Switzerland, the Tyrol, Italy and the then Polish Ukraine (at Belaya Tserkov and Odessa). Some of Dowler's material originated from a Princess Volkonsky who Baker identifies with Princess Maria Volkonsky, the wife of Prince Sergei Volkonsky. These specimens came from Crimea and Siberia. Both Doubleday (1844) and Gray (1856) include two examples from “Dr Dowler”, a *P. apollo* from Switzerland and a *P. mnemosyne* from Odessa. Neither has been found, but the cited localities indicate that they originated from Dowler's personal collecting tour.

W. C. Hewitson (1806–1898)

William Chapman Hewitson was by training a land surveyor and is known to have been employed in the survey for the railway between Bristol and Exeter. He pursued Entomology and Ornithology as a hobby, but as a significant beneficiary in the wills of two of his uncles, he was by 1843 a man of independent means (Embleton, 1880).

In 1845, he visited Switzerland, probably significant in terms of the ex Hewitson specimens that Gray (1856) records—one *Parnassius apollo*, two *P. phoebus*, and two *P. mnemosyne*, as documented by Hewitson (1845). We only found a single *P. phoebus*.

Hewitson is perhaps best known for what Pamela Gilbert (Gilbert, 2000) notes as his scrupulously meticulous art work exemplified by the lavish volumes *Illustrations of new Species of exotic Butterflies* (5 vols) and *Illustrations of diurnal Lepidoptera* (2 vols). An avowed creationist, his principles are firmly stated. “If [I] could believe in the transmutation of species or that there was one grain of truth in the chaotic jumble of Mr. Darwin, [my] life-long pleasure and occupation would be taken from [me]”.

His entire collection of butterflies, and their cabinets, were bequeathed to the British Museum (as BM 1879-69) surely one of the most significant donations of butterflies ever received by the Museum, particularly in terms of the type material represented. Kirby

(1879) undertook the arduous task of cataloguing the entire collection.

Material located: specimen 147836 (see Table 1).

Summary

Butterfly collections, and butterfly collectors, have each passed through various non exclusive phases. The *Parnassius* collection as reconstructed here represents perhaps the decline of dilettante collecting and the start of something scientific—collections assembled for more than simple acquisitiveness. In Britain, these new collections came best to be exemplified by Walter Rothschild's butterflies. Rothschild always said he had no duplicates. His vast series were assembled to answer specific questions and each individual had its own unique story to tell.

Around 1850, the soldier/collector was perhaps the most significant contributor to the national collections (at least with respect to butterflies), a tradition set to continue throughout the colonial exploration of the late 19th Century. At the same time, the commercial collector is also represented, and this was to be come by 1914 the most significant source of exotic specimens, at least for the great private collections such as those of J. J. Joicey, C. Oberthür and L. W. Rothschild.

The *Parnassius* collection of 1856 is representative of these changes in the culture of butterfly collecting providing a tangible record of the motives and attitudes of the personalities involved.

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摘 要

不滅のパルナシウス—^{いにしえ}古のコレクションの幻影 (Phillip ACKERY · Kim GOODGER)

パルナシウスを例に、1856年前後の大英博物館のコレクションを再構成し、際立った収集家や寄与者によりコレクションが成されたことを整理した。この1856年は、Grayによるアゲハチョウ科の収蔵目録が発行された年である。この出版を境にして大英博物館のコレクションは大きく変貌を遂げていった。当時の標本提供者を見ると、19世紀後半へと続く植民地開拓とあいまって、軍人または軍役にかかわった収集家が国立のコレクションにとって重要な貢献をしてきたことが分かる。ここでは著名人のみならず、パルナシウスコレクションに関わった11名が紹介されている。同時に商業的採集家も魅力的な標本の最たる収集源となった。1856年前後のパルナシウスは蝶の収集文化を代表するものであり、かつ同時代に起こった博物学上の分岐点—学問道楽的「歴史的コレクション」から「分類学」へ—に立っていた人々のそれぞれの動機と生き方を「再構成された当時の標本を通して」呈示している。

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